AMSAT Weekly Satellite Report
Issue: WSR-360
Date: 2008-12-25
Sources: amsat-ans-2008-wsr-360.txt

This report is organized into five (5) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - proposed satellites
Part 5 (S5) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS ANS-360.S1
WSR 360 Part 1 12/25/2008

AMSAT NEWS SERVICE BULLETIN 360.S1
FROM AMSAT HQ SILVER SPRING, MD, December 25, 2008
TO ALL RADIO AMATEURS
BID: $ANS-360.S1

DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008

Status: OPERATIONAL
Current Mode: U/v - voice

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz

Proposed Frequencies:
Primary telemetry downlink: 145.870 MHz 1200 Baud BPSK AX.25 400mW
Backup telemetry downlink: 145.930 MHz 1200 Baud BPSK AX.25 400mW
Linear transponder passband downlink: 145.880 - 145.920 MHz(inverting)
Linear transponder passband uplink: 435.570 - 435.530 MHz
Transponder mode beacon: 145.870 MHz CW (10dB below transponder PEP)

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=68
[07312008]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05,2005

Status: Operational
Current Mode: U/v - Indian Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.859330 MHZ CW

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Dutch Beacon:   145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[08072008]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004

Status: Operational

Current Modes:   FM Repeater - V-FM/u-FM
                 BBS         - L-9k6/u-9k6
                 Telemetry   - OFF

Analog voice downlink:     435.300 MHz FM
                           435.150 MHz FM
                          2401.200 Mhz FM
Analog voice uplink:       145.880 MHZ FM
                           145.880 MHz USB
                           145.920 MHz FM
                          1268.700 MHz FM 67Hz PL tone
Digital Downlinks:        435.150 MHz FM 38k4 PBP, 1 watt output
                          435.150 MHz FM 9k6 Pacsat Broadcast Protocol
                         2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink:           145.860 MHz FM 9k6 Pacsat Broadcast Protocol
                         1268.700 mhz FM 9k6 PBP Digital
Beacon:                   435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
   TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=19
[12252008]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002

Status: Operational.

Current Mode: V/u

Uplink:   145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz
```

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4 Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the repeater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset the 10 minute timer.

[05282007]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational - check operational schedule for current times!!

Current Mode: V/u

Voice/CW Mode JA
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage: http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/fo29cwts.htm

[0820007]
=====
AO-27 AMRAD
Catalog number: 22825
Launch date: September 26, 1993

Status: OFF - Reload software

Current Mode: V/u

```
Uplink:   145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[10092008]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530
Launch Date: November 15, 1974

Status: Operational depending on amount of Sunlight

Current Mode: Listen before transmitting

Uplink:   145.850 to 145.950 MHz CW/USB Mode A
          432.125 to 432.175 MHz CW/LSB Mode B
Downlink:  29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
          145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
          145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons:   29.502 MHz CW
          145.972 MHz CW
          435.100 MHz CW
         2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php

The AO-7 Logbook and Resource Website:
http://www.planetemily.com/ao7/

AO-7 Usage Guidelines on the AO-7 Log and Resource Site located at:
http://www.planetemily.com/ao7
[05282007]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998

Status: Operational

Current Active Modes: FM Repeater - U/v
                      Voice -       V/v
                      BBS -         V/v
                      APRS -        V/v
                      SSTV -        V/v

Expedition 18 Crew:
Commander:               Mike Fincke      KE5AIT
Flight Engineer:         Yury Lonchakov   RA3DT
Flight Engineer:         Sandra Magnus    KE5FYE


Available Modes and Frequencies:

Digital/APRS:
Worldwide packet uplink:   145.825 MHz FM 9k6
Worldwide packet downlink: 145.825 Mhz FM 9k6

Voice:
```

```
Region 1 voice uplink:     145.200 MHz FM
Region 2/3 voice uplink:   144.490 MHz FM
Worldwide downlink:        145.800 MHz FM

Crossband Repeater:
Repeater Uplinks:         1269.650 MHz FM
                           437.800 MHz FM
Repeater Downlink:         145.800 MHz FM

SSTV Robot 36:
Downlink:                  145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian:                   OR4ISS
German:                    DP0ISS
Russian:                   RS0ISS
                           RZ3DZR
United States:             NA1SS
Packet Mailbox:            RS0ISS-11
Digipeater callsign:       ARISS

Official ARISS Webpage:    http://www.rac.ca/ariss
ISS Fan Club Webpage:      http://www.issfanclub.com
APRS tracking page:        http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12252008]
NNNN
/EX

SB SAT @ AMSAT W8ISS ANS-360.S2
WSR 360 Part 2 12/25/2008

AMSAT NEWS SERVICE BULLETIN 360.S2
FROM AMSAT HQ SILVER SPRING, MD, December 25, 2008
TO ALL RADIO AMATEURS
BID: $ANS-360.S2

RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number:
Launch Date: May 23, 2008

Status: Operational

Curent Mode: Telemetry
             Audio
             Images

Downlinks: 435.315 MHz
           435.215 MHz
[05292008]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007

Status: Intermittent
```

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.
[11152007]
=====
CP3
Catalog Number: 31128
Launch Date: April 17,2007

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25
[07302007]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: In Orbit

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM
[02052007]
=====
NO-62 FCAL
Catalog Number: 29667
Launch Date: December 21, 2006

Status: Operational

Current Mode: /u

Downlink: 437.385 Mhz APRS AX25

Downlink ID: KD4HBO

Website: http://eng.usna.navy.mil/~bruninga/fcal.html
[10222007]
=====
GENESAT-1 ?O-??
Catalog Number: 29655
Launch Date: December 16, 2006

Status: Operational

Current Mode: /u

Telemetry Beacon Downlink: 437.0670 MHz AFSK 1200 BPS

Official webpage: http://www.crestnrp.org/genesat1/ahc.html
[01082007]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/
[03262007]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003

Status: Operational

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[01082007]
=====
CO-56 CUTE-1.7 + APD
Catalog number: 28941
Launch date: February 21, 2006

Status: Operational?

Uplink: 1268.5000 MHz GMSK 9600 BPS
Downlink: 437.4700 MHz 1200 FM ax25 or SRLL (ACTIVE only near Japan?)

Telemetry Beacon: 437.3850 CW
Callsign: JQ1YPC

Information webpage:
http://lss.mes.titech.ac.jp/ssp/spacerium/cute1blog/
[12182008]
=====
CO-55 CUTE-1
Catalog Number: 27844
Launch date: June 30, 2003

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW
[08132007]
=====

```
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004

Status: Operational

Current Modes:   FM Repeater - V-FM/u-FM
                 BBS         - L-9k6/u-9k6
                 Telemetry   - OFF

Analog voice downlink:     435.300 MHz FM
                           435.150 MHz FM
                          2401.200 Mhz FM
Analog voice uplink:       145.880 MHZ FM
                           145.880 MHz USB
                           145.920 MHz FM
                          1268.700 MHz FM 67Hz PL tone
Digital Downlinks:        435.150 MHz FM 38k4 PBP, 1 watt output
                          435.150 MHz FM 9k6 Pacsat Broadcast Protocol
                         2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink:           145.860 MHz FM 9k6 Pacsat Broadcast Protocol
                         1268.700 mhz FM 9k6 PBP Digital
Beacon:                   435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
   TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=19
[12252008]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001

Status: Semi-operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink:        144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[09242007]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational
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Current Modes: V/U
               L/U

Downlink: 435.225 MHz FM (9600-baud FSK)
          435.325 Mhz - Not Available - temperature problems
Uplinks:  145.850 FM
          145.890 FM
          145.930 FM
         1269.700 FM
         1269.800 FM
         1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://www.iarc.org/techsat/techsat.html
[12042007]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984

Status: Semi-operational.

Current Mode:  /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon:          435.025 MHz
Mode-S Beacon:     2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[01242008]
=====
RS-22 RADIO SPORT RS-22
Catalog number: 27939
Launch Date: September 27, 2003

Status: Operational - 70cm cw only

Current Mode:  /u

CW Beacon - 435.352 MHz
            145.818 MHz
[08062007]
=====
Can X-2
Catalog number:
Launch Date: April 28, 2008

Status: IN ORBIT

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=46
```

[05292008]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008

Status: IN ORBIT

Downlink: 437.425 MHz

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=60
[05292008]
=====
CO-65 Cute-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008

Status: IN ORBIT

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=78
[07312008]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008

Status: IN ORBIT

Downlink: 437.275 Mhz CW
          437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=52
[05292008]
=====
CO-66 Seeds II
Catalog number:
Launch Date: April 28, 2008

Status: Operational

Downlink: 437.485 MHz

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/main_e.html

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=36
[12042008]

```
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998

Status: Operational

Current Active Modes: FM Repeater - U/v
                      Voice -       V/v
                      BBS -         V/v
                      APRS -        V/v
                      SSTV -        V/v

Expedition 18 Crew:
Commander:                Mike Fincke      KE5AIT
Flight Engineer:          Yury Lonchakov   RA3DT
Flight Engineer:          Sandra Magnus    KE5FYE


Available Modes and Frequencies:

Digital/APRS:
Worldwide packet uplink:   145.825 MHz FM 9k6
Worldwide packet downlink: 145.825 Mhz FM 9k6

Voice:
Region 1 voice uplink:     145.200 MHz FM
Region 2/3 voice uplink:   144.490 MHz FM
Worldwide downlink:        145.800 MHz FM

Crossband Repeater:
Repeater Uplinks:         1269.650 MHz FM
                           437.800 MHz FM
Repeater Downlink:         145.800 MHz FM

SSTV Robot 36:
Downlink:                  145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian:                   OR4ISS
German:                    DP0ISS
Russian:                   RS0ISS
                           RZ3DZR
United States:             NA1SS
Packet Mailbox:            RS0ISS-11
Digipeater callsign:       ARISS

Official ARISS Webpage:    http://www.rac.ca/ariss
ISS Fan Club Webpage:      http://www.issfanclub.com
APRS tracking page:        http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12252008]
NNNN
/EX

SB SAT @ AMSAT W8ISS ANS-360.S3
WSR 360 Part 3 12/25/2008
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AMSAT NEWS SERVICE BULLETIN 360.S3
FROM AMSAT HQ SILVER SPRING, MD, December 25, 2008
TO ALL RADIO AMATEURS
BID: $ANS-360.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

CP4
Catalog Number: 31122
Launch Date: April 17,2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=79
[10022008]
=====
HO-59 HITSat
Catalog number: 29484
Launch date: September 22, 2006

Status: Non-Operational

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200 BPS
Beacon: 437.2750 MHz CW

Callsign: JR8YJT
[10152007]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
                             2407.250

Official Website: http://www.ncube.no
[05012006]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink   2401.835 MHz 38k4 packet

Official webpage: http://sseti.gte.tuwien.ac.at/WSW4/
Latest news: http://sseti.gte.tuwien.ac.at/WSW4/MOPWS/news.php
[01222007]

=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non=Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK
[08132007]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)
Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Non-Operational

Uplinks: 145.850 MHz
           145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[007302007]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549

Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON	General Beacon(GB)	Middle Beacon(MB)	Engineering Beacon(EB)
2 m	none	145.898 MHz	none
70cm	435.438 MHz	435.588 MHz	435.838 MHz
13cm(1)	2400.188 MHz	2400.338 MHz	2400.588 MHz
13cm(2)	2401.173 MHz	2401.323 MHz	2401.573 MHz
3cm	10450.975 MHz	10451.125 MHz	10451.375 MHz
1.5cm	24047.885 MHz	24048.035 MHz	24048.285 MHz

[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: ?
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:

http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Operational - Not open for Amatuer use

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012006]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
          145.900 MHz FM 1200-baud
          145.925 MHz FM 1200-baud
          145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
           435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
          145.870 MHz
          145.890 MHz
          145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====

LIBERTAD-1
Catalog Number: 31129
Launch Date: April 17,2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25
[10222007]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
                  145.860 MHz 1200-baud Manchester FSK
                  145.880 MHz 1200-baud Manchester FSK
                  145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12o

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[01222007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: SEMI-Operational

Current Mode: V/u

```
Uplink:         145.900 MHz FM 1200-baud Manchester FSK (reserved)
                145.920 MHz FM VOICE
                145.940 MHz FM 1200-baud Manchester FSK (reserved)
                145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink:       437.026 MHz USB VOICE
                (1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC  437.050 MHz RHCP
   PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS:                PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[12252008]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink:   145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink:         145.9000 - 146.0000 MHz SSB/CW
Downlink        435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink:         145.8500 MHz MFSK 1200 BPS
Uplink:         145.8700 MHz MFSK 1200 BPS
Uplink:         145.8900 MHz MFSK 1200 BPS
Uplink:         145.9100 MHz MFSK 1200 BPS

Downlink        435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink:   435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon:   145.810 MHz (unmodulated carrier)
```

```
W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink:         145.9000 - 146.0000 MHz SSB/CW
Downlink        435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink        435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink:         145.8500 - 145.9000 MHz SSB/CW
Downlink         29.4000 -  29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink        29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink:   145.9000 - 146.0000 MHz SSB/CW
Downlink:  29.4500 -  29.5500 MHz SSB/CW
Beacons:   29.450 MHz
          435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
                    29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink:   145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink:   145.858 to 145.898 MHz CW/USB
```

Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

SB SAT @ AMSAT W8ISS ANS-360.S4
WSR 360 Part 4 12/25/2008

AMSAT NEWS SERVICE BULLETIN 3603.S4
FROM AMSAT HQ SILVER SPRING, MD, December 25, 2008
TO ALL RADIO AMATEURS
BID: $ANS-360.S4

THE FOLLOWING SATELLITES ARE NOT IN ORBIT BUT ARE PROPOSED FOR LAUNCH
AT THIS TIME:

XW-1
Catalog Number:
Proposed Launch Date: Summer 2009?

Status: Design Phase

Proposed Equipment:
Beacon: 435Mhz, CW 20dBm
Linear transponder: RX: 145Mhz, TX: 435Mhz, 40KHz, 30dBm
FM Transponder: RX: 145Mhz, TX: 435Mhz, 16KHz, 30dBm
Digital store and forward transponder: RX: 145Mhz, TX: 435Mhz, 16KHz,
                                        30dBm

IARU coordination status page:
http://www.amsat.org.uk/iaru/formal_detail.asp?serial=108

[10092008]
=====
Phase 5a Mars Mission AO-??
Catalog Number:
Proposed Launch Date: 2009 or 2011

Status: Design Phase

For the latest project status update please visit the AMSAT-DL P5-A
web page:
http://ticket-to-mars.org
[01222007]
=====
PHASE 3E AO-??
Catalog number:
Proposed Launch Date: Late 2008

Status: Under Construction

For the latest project status update please visit the AMSAT-DL P3-E
web page:
http://www.amsat-dl.org/p3e/
[01222007]
=====
Eagle AO-??
Catalog Number:
Proposed Launch Date: Early/Mid 2009

Status: Design Phase

For the latest project status updates please visit the AMSAT-NA web
page: http://www.amsat.org
[01222007]
NNNN
/EX

SB SAT @ AMSAT W8ISS ANS-360.S5
WSR 360 Part 5 12/25/2008

AMSAT NEWS SERVICE BULLETIN 360.S5
FROM AMSAT HQ SILVER SPRING, MD, December 25, 2008
TO ALL RADIO AMATEURS
BID: $ANS-360.S5

THE FOLLOWING SATELLITES HAVE RE-ENTERED OR HAVE BEEN RETURNED SAFELY:

NO-61 ANDE
Catalog Number: 29664
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: December 25, 2007

Uplink/Downlink: 145.825 Mhz FM APRS AX25
[01032008]
=====
NO-60 RAFT-1
Catalog Number: 29661
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: May 30, 2007

Main Downlink: 145.825 Mhz FM APRS AX25

APRS Uplink: 145.825 MHz FM APRS AX25
Voice/PSK31 Uplink: 28.120 MHz

Packet to Voice ID: RAFT
[06112007]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a live radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz. Pre-net operations start at 18:00 UTC, with current ANS bulletins transmitted to the eastern U.S. at 19:00 UTC and to the western U.S. at 19:30 UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at} amsat.org
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/EX